

April 10, 1985

Dear Manufacturer:

CD-85-04 (LD)

Subject: Separate Labels for High Performance Vehicles

Enclosed for your comment is a proposed addition to OMS Advisory Circular (A/C) No. 83A. The proposal is being considered for 1987 model year applicability. This addition would require "high performance" vehicles to be labeled separately because they typically have much lower fuel economy than the other vehicles currently within the same model type.

High performance vehicles quite often consist of an option package which includes a version of the currently defined basic engine that has a higher horsepower rating. Label values are based on sales-weighted averages of vehicles tested within the model type. High performance vehicles usually have low sales volumes when compared to the rest of the model type, so if they are tested, their lower fuel economy has little effect on the label value. Quite often, the high performance packages are not tested at all. Either way, the result is the high performance vehicle is labeled with model type ratings that are unrepresentatively high for the high performance package. Typical differences are 2 mpg in the city and 3 mpg on the highway, although individual cases can be much larger.

We recognize in some situations the fuel economy variability within current model types may equal or exceed the variability caused by including high performance vehicles within a model type. This is typically caused by axle ratio options. However, because the high performance vehicles are extensively advertised, often under separate subnames (such as Mustang HO, Camaro Z-28, and Shelby Charger), they are already perceived by the public as separate model types. Therefore, we contend that these vehicles should be labeled separately, rather than have the buyer expect both high performance and the higher model type fuel economy.

To correct this problem, we want to identify high performance engines or packages and classify them as separate basic engines (and consequently create separate model types). Under 40 CFR 600.002-85 EPA is allowed to define basic engine using "engine characteristics specified by the Administrator."

Our proposal uses engine horsepower differences to identify these vehicles as being in a separate basic engine. However, the use of engine horsepower alone can result in the separation of vehicles whose fuel economy is not significantly different. Some changes (e.g., reducing back-pressure by using dual exhaust systems) increase engine horsepower but have little effect on (or may actually improve) fuel economy. Our proposal incorporates parameters which would likely increase engine horsepower but reduce fuel economy. It requires that one of the parameters must also change to qualify for separate basic engines.

Even though EPA has the authority to make this change without regulatory action, we would like to first assess the impact of such a change on manufacturer product plans. We would also like to know whether the specific mechanics of the proposal are practical and whether there are better ways to achieve the same results. Receipt of your comments by May 17, 1985 would be appreciated. Please direct any questions or comments to Mr. E. Bontekoe of my staff.

Sincerely yours,

Robert E. Maxwell, Director  
Certification Division  
Office of Mobile Sources

Enclosure

## Proposal

Section IV.A., Basic Engine Definition, of A/C No. 83A would be modified by adding sub-paragraph 1.g as follows:

### A. Basic Engine

1. \* \* \* The following additional engine characteristics are determined to distinguish separate basic engines:

\* \* \* \* \*

g. Within the above, if any engine differs in horsepower rating\* by 10 percent or more of the highest value, and if any of the following parameters differ:

- (1) The intake or exhaust valve sizes.
- (2) Camshaft timing or cam lift.
- (3) Intake manifold design.
- (4) Intake manifold induction port size or configuration.
- (5) Compression ratio.

\* \* \* \* \*

\* Engine horsepower should be measured according to the SAE "net" horsepower procedure rounded to the nearest whole

horsepower (Ref: SAE 1349) or calculated by a method that projects SAE net horsepower as approved by EPA (e.g., computer projected). The exhaust system installed will be the high sales exhaust system in that test condition and all options with 33 percent or more installation rate that affect engine horsepower should be installed or simulated.

CSC-EPA/MVEL COMPUTER OPERATIONS  
\*\* MANUFACTURER JOB REQUEST \*\*

#### MANUFACTURER'S REPRESENTATIVE

MANUFACTURER NAME

REPRESENTATIVE NAME

#### TYPE OF INPUT

1. ENGINE SYSTEM INFORMATION ( 1005 )	JOB#
2. VEHICLE INFORMATION DATA ( 1000 )	JOB#
3. MANUFACTURER TEST DATA ( 1202 )	JOB#
4. RUNNING CHANGES ( 1216 )	JOB#
5. SPECIAL DF ( 1020 )	JOB#
6. L.D. VEHICLE SUMMARY ( 1245 )	JOB#
7. CAR/TRUCK LINE ( 1263 )	JOB#
8. F.E./GEN. LABEL ( 1236 )	JOB#

COMMENTS :

## COMPUTER OPERATIONS

COMPLETED: DATE/TIME

INIT.

COMMENTS :

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